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THE MARVELOUS, MONSTROUS, MYTHICAL, MARINE MOLLUSK, *COCHLEA SARMATICA* THEVET, 1575

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Abstract: Thevet in his *Cosmographie universelle* (1575) figured a shell, probably the one now known as *Cassis madagascarensis* Lamarck, 1822, which actually occurs in the Atlantic Ocean in the vicinity of southeastern Florida, the Bahamas, and Greater Antilles. In this shell, he placed a fantastic animal from the Baltic Sea, the description and figure of which were to be reproduced by credulous savants for nearly the next century and a quarter. Since the original figure, showing the snail in its supposed habitat, and the English translation of its description are not generally available, they are both reproduced.

Fabulous beasts populated the human imagination during the Middle Ages and Renaissance, and as noted by Dance (1979), the line separating real animals from

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imaginary ones could be very thin. The major chronicler of the monsters believed to inhabit the northern sea between Iceland and the Scandinavian Peninsula was Olaus Magnus (1490-1557), Archbishop of Uppsala, who portrayed many of them in his now very rare, separately published map, *Carta Marina* (1539). Following the Reformation, Magnus left his native Sweden and took up residence in Rome. There he published the first comprehensive description and history of medieval Scandinavia, *Historia de gentibus septentrionalibus* (1555). This work included a simplified version of the *Carta Marina*, with more detailed delineations in the text of the creatures portrayed on it. Among these were the Monk Fish, and the Bishop Fish, now thought to have been invented from squid parts, as well as a fanciful version of a giant squid. All of these are discussed by Ellis (1998). Also portrayed by Magnus is a great sea serpent attacking a ship, and Saint Brendan (ca. 486-578) is shown mistaking a basking whale for an island a thousand years after this supposed event took place. From a modern translation of *Navigatio Sancti Brendani* (1991), which made its original appearance in about 800, one surmises that Brendan, in his currach, not only reached the Canary Islands, but also the American coast as far south as Florida. A similar voyage was more recently made by Severin (1978). Magnus's treatise also illustrated daily work and customs. It showed men flensing a whale, as well as people on skis, which is believed to be the first illustration of this means of transportation. The book was sufficiently popular to be translated into Italian and published in Venice (1565), while the original edition was reprinted in Basel (1567). Most of the illustrations in the subsequent printings were made from the original wood blocks.

It seems strange that Olaus Magnus, despite his expertise in this area, was unaware of the partially imaginary snail later described by André Thevet (1502-

1590) in his *Cosmographie universelle* (1575). Though the shell resembles that of a living species, *Cassis madagascarensis* Lamarck, 1822, we might forgive Magnus for not being cognizant of yet another fanciful animal. Schlesinger and Stabler (1986) point out that little is known about Thevet's early life except that he was a native of Angoulême, and somehow came under the protection of the powerful La Rochefoucauld family, received a university education at Potiers and Paris, and became private secretary to the Cardinal of Amboise. Later, he became a most successful man of the cloth, holding a number of official positions at court and in the Church. He became *aumonier* to Catherine de Medici, Royal Cosmographer to four kings, a Canon here, and Abbot there, and Overseer of the Royal Collection of Curiosities at Fontainebleu. Thevet was one of the most widely traveled Frenchmen of his day. He spent time in the Levant and later went to Brazil, returning by a northerly route past Haiti, Cuba, Florida, and "very close to Canada," by which he apparently meant that he had been to the region north of the Carolinas.

Although he never returned to North America, by the time he wrote *La Cosmographie universelle* some twenty years later, he asserted not only that he had landed in Canada, but that he had spent twenty days there examining that country and talking to the natives. The North American portion of his work was translated by Schlesinger and Stabler (1986) who said of him, "Not only did Thevet receive some of the harshest criticisms of any literary figure of his day—involving rare agreement among Catholic and Protestant writers—but his poor reputation as a scholar has continued until recent times." They do mention though, that modern scholars have found his information on some subjects, resting on no known sources, to be entirely correct. However, in addition to copying a number of Magnus's figures, Thevet added the description

and figure of the snail in its native habitat described below, which rested on no previously known written source, and contained grave anatomical inaccuracies. Ambroise Paré, the famous French Renaissance physician and expert on gunshot wounds, appears to have had access to Thevet's woodcut. His rendering of Thevet's description and illustration first appeared in his collected works (1579), which went through three additional editions, 1585, 1593, and 1607, and was translated into English by Johnson (1634). This first edition of *Deux livres de chirurgie* was a small octavo volume, the second book of which, *Monstres et Prodiges* (pp. 365-380) appeared before Thevet's figure was available. Delaunay (1925) gives a detailed commentary on the book on monsters, which were included in this book. Caprotti (1988) duplicated Paré's illustration of 1579 and dated it incorrectly as from 1573. Janet Doe's *A Bibliography of the works of Ambroise Paré...*(1937) provides the most exhaustive collations of the several of Paré's works mentioned here, and on page 74, she writes that the "1573 work must have appeared before August 24, 1572."

Thevet's sixteenth century French, as copied by Paré, had a few minor discrepancies meticulously pointed out by Céard (1971:191, note 274; fig. 54). Paré's archaic French was translated into equally archaic English by Johnson (1634: 1007). This description of the imaginary gastropod has been freely rendered here, though a more modern translation by Pallister (1982) exists. Thevet mentioned that he had sent notice of a number of monstrous fishes to the late encyclopedist Conrad Gesner (1516-1566), in Geneva, but the mythical snail was not included in the latter's posthumous work. It was first illustrated in a work on natural history as a serious contribution to Conchology in 1606, by the other celebrated encyclopedist, Ulissi Aldrovandi (1522-1607) of the then-Papal State of Bologna. The woodcut appears without any background,

and has a length of 11.5 inches or 482 mm on a full folio plate. Subsequent wood cuts in Jonstonus (1603-1675) and Buonanni (1638-1725) do not exceed 5 inches or 127 mm in length. Johnstonus's *Historiae naturalis* went through four editions between 1650 and 1768.

Perhaps the best known work to include Thevet's snail is that of Buonanni (1681), who produced the first illustrated book on shells, *Ricreatione dell' ochio e della mente nell' observation' delle Chiocciole...*, (Recreation for the eyes and mind from the study of shells). Buonanni was born in Rome, and was ordained a Jesuit priest. He was a student of the German Jesuit, Athanasius Kircher (1602-1680), who became well known and learned in many branches of the humanities and sciences, among which were deciphering hieroglyphics, optics, and astronomy. In 1688, the year Buonanni was born, Kircher was called to Rome by Pope Urban VIII and appointed Professor of Mathematics at the Roman College of the Society of Jesus in 1688. He added to the College's collection his own assembled rarities of nature, art, and superstition. This, in time, became the Kircher Museum. Before his death, Kircher had written forty-four books that attest to the extraordinary variety of his interests. Buonanni succeeded to the post occupied by Kircher upon the death of the latter in 1680, and while Buonanni published his *Recreatione* the following year, based on Kircher's shells, he was not elevated to Curator of the Museum until 1689. Those shells which remained extant were deposited in the Museo dell' Instituto di Geologia e Paleontologia in Rome during 1913.

Buonanni's system of classification is of nugatory value. He promulgated many of the mythical beliefs of the earlier commentators. For example, he believed, as did Aristotle, that "all [shelled mollusks] are generated spontaneously by the mud, oysters by dirty mud and others by sandy mud," and that they were heartless and bloodless.

He was convinced that both observation and authority supported spontaneous generation, though this erroneous theory had been disproved by two other Italians, Francesco Redi (1626-1698) and Marcello Malpighi (1628-1694) some years previously. The illustrations are reasonably accurate, but reversed. The 1681 edition of the *Ricreatione* must have enjoyed considerable popular success, since it was translated from Italian into Latin to appeal to a much wider, international audience, and appeared three years later (1683) with numerous additional wood cuts.

In 1709, Buonanni published a complete description of the Kircher Museum. For this work, the previously printed figures of shells were redrawn and others were added. The plates were issued again in a subsequent, enlarged, posthumous edition (1773-1782) of the Museum's contents. Some copies have colored plates which show the last serious illustration of *Cochlea sarmatica* (p. 143 pl. 32, fig. 270), a pinkish animal with a yellow and brown striped shell. This plate was reproduced in full color by Dance and Heppell (1991:26, 27) who placed the snail in the Black Sea, possibly because the present Black Sea occupies part of the area known as the Sarmatian, a local stage of the Miocene Period. None of the Seventeenth and Eighteenth Century authors who followed Thevet questioned the authenticity of his animal, and they all gave him credit for its discovery. Aldrovandi's (1606) figure was again reproduced in very reduced form by Burns (1975: 32, 33) in a small volume, *Bio Graffiti*, poems on modern biographical subjects, accompanied with the line, "To a Lonely Hermaphrodite Know Thyself."

Mann (1946:8), in his life of Fredrich Gentz (1764-1832), so called Secretary of Europe, mentioned that "the kindly, meticulous old gentleman, the austere and profound philosopher, Immanuel Kant (1724-1804), who took Gentz into the intimate circle of his disciples, let him read proofs of his writings as they came from the press, and invited the

young man to his luncheons, where there were incredible amounts of dried fish and for every guest a quarter of a bottle of Bordeaux. The conversation turned on the political events of the day...not to mention such things, say, as the geography of far lands, marvelous tales of travel, and monsters of the animal world for whose sensational descriptions the old gentleman often relied on writers whom he would have done better not to trust.” Surely, the old sage of Königsberg, then East Prussia, whose habits were so regular that people set their watches by him as he passed their doors on his constitutional, must have had a copy of Magnus or Paré. This author of *The Critique of Pure Reason* may also have remembered that Peter the Great had, in 1710, the year after his defeat of King Charles XII of Sweden at Poltava, commanded the construction of a huge sea serpent, its tail supported on numerous wagons linked together to undulate as it moved for the celebration of the marriage of his niece Anna Ivanovna, with the Grand Duke of Courland [present day Latvia] (Pflaum, 1984: xv). Tsar Peter is also remembered by a few of us for purchasing the great natural history collection of the Dutch apothecary, Albertus Seba (1665-1736) in 1717.

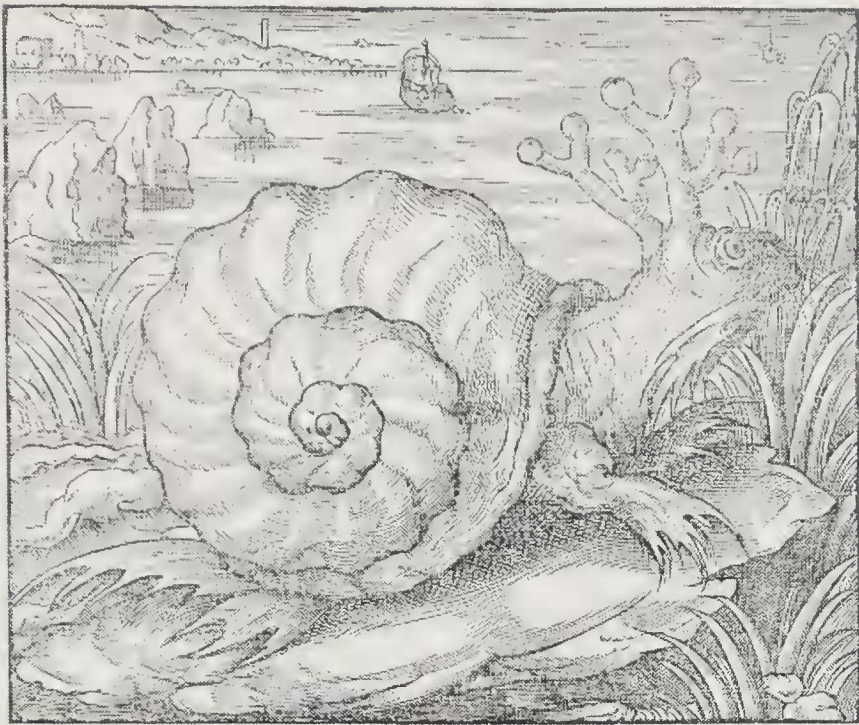
The earlier belief in special creation, which put no limits on what God might design, has now been repudiated by the Darwinian paradigm. However, to this day, there are some who believe in and search for strange monsters.

Cochlea sarmatica Thevet, 1575

- Cochlea sarmatica* Thevet, 1575. La cosmographie universelle 2: pt. 20, Chap. 12, p. 929b, fig.
- Paré, 1579. Les oeuvres de M. Ambroise Paré, p. 1058, fig.
- Aldrovandi, 1606. De reliquis animalibus exanquibus libri quatuor, p. 391, fig. 157.
- Johnson, 1634. The works of that famous chirugion Ambrose Parey...Lib. 25, Of monsters and prodigies, p. 1007.
- Jonstonus, 1650. Historiae naturalis et exanguibus aquaticus, p. 38, pl. 12, fig.
- Buonanni, 1681. Ricreatione dell' occhio e della mente nell' osservation delle Chiocciolle...p. 221, fig. 230.
- Buonanni, 1684. Recreatio mentis, et oculi in observatione Animalium Testaceorum...p. 142, fig. 230.
- Buonanni, 1709. Museum Kircherianum, sive Museum a P. A. Kirchero in Collegio Romano Societatis Jesu...p. 463, fig. 230.
- Buonanni, 1782. Rerum naturalium historia, nempe Quadrupedum, etc...in Museo Kircheriano...2: 113, 114, p. 132, fig. 230.

Description

The Sarmatian, or Eastern German, Ocean contains fishes that are unknown to hot countries, and very monstrous. Such is that which resembling a snail, equals a barrel in magnitude of body, and a stag in the largeness and branches of her horns: the ends of her horns are rounded as it were into little balls, shining like pearls, the neck is thick, the eyes shining like lighted candles, with a roundish nose set with hairs like a cat, the mouth wide, under



which hangs a piece of flesh very ugly to behold. It goes on four legs, with many broad and crooked feet, and has a long tail, and marks of different colors like a tiger, together serve for her fitness to swim. This creature is so timorous, although it is an Amphibium, that it lives both in water and ashore, yet usually it keeps itself in the sea, neither does it come ashore to feed unless it is a very bright season. The flesh is very good and pleasing meat, and the blood is medicine for such as have their livers ill affected or their lungs ulcerated, as the blood of great tortoises is good for leprosy.

Thevet mentioned that he saw this animal in Denmark, along with a number of other monstrous animals, and in effects tells the reader how lucky he is to be able to see them on the printed page rather than to expose himself to the dangers involved in searching them out. He further

noted that he had sent information on several monstrous fishes to the late Conrad Gesner [in Geneva].

Remarks: Thevet has given us a binomial name for what appears to your author to be a shell named some two hundred years later, *Cassis madagascarensis* Lamarck, 1822, described from "Madagascar," but actually from the Atlantic Ocean in the vicinity of southeastern Florida, the Bahamas, Greater Antilles. In this shell, Thevet has placed a fantastic animal from the Baltic Sea which he portrayed in its supposed native habitat, with the printed marginal note next to the figure, "Pourtract du Limaçon poisson monstrueux." The Baltic Sea was the Sarmaticus Oceanus in ancient geography, and, as mentioned, not the Black Sea as suggested by authors. Delaunay (1962: 132-133) previously suggested that the drawing of the shell was that of a large fossil ammonite found in Denmark from the Albian stage of the lower Cretaceous Period.

Thevet described his animal in more careful detail than many extant animals were to be rendered in more recent times. He mentioned its relationship to the environment as well as its medical uses, and assures us that he actually saw the animal in Denmark. Finally, he generously shared his knowledge with Gesner. Everything done well, if, alas, the animal had but existed.

Acknowledgments

Although Paré and all subsequent authors referred to Thevet, it had never occurred to me to look up his original work. It was Florence Ferrington who, in 1995, kindly called my attention to an exhibit in Harvard's Houghton Library containing Thevet opened to the very page on which *Cochlea sarmatica* was figured. Ms. Ferrington and her husband, James W. Needham, are distinguished

collectors of conchological literature and generous supporters of the Houghton Library. It is a great pleasure to thank her, as well as the officials of the Houghton Library, who enabled the reproduction of the figure. Paré (1579), which had formerly been in the library of Dr. Oliver Wendell Holmes and the Boston Medical Library, as well as Johnson (1634) were made available at the Countway Library of the Harvard Medical School. Most of the remaining items are either in the library of the Museum of Comparative Zoology or in my own library.

Drs. Alan R. Kabat and Kenneth J. Boss were kind enough to read the manuscript and make a number of significant corrections and improvements, as did my wife Marrian. Dr. Kabat also supplied the references to Delaunay (1925), Doe, and Pallister. Mr. Adam Baldinger helped with the tedious work involved in its publication.

Relevant Literature

- Aldrovandi, Ulisse. 1606. *U. Aldrovandi...de reliquis animalibus exanguibus libri quatuor post mortem eius editi* [with a preface by F. Aldrovandi]; *nempe' de mollibus, crustaceis, testaceis, et zoophytis*. Bononiae. [The colophon is dated 1605.] 1642. [Another edition].
- Brendan, Saint. 1991. *The voyage of Saint Brendan: journey to the promised land—the Navigatio sancti Brandani abbatis* [translated with an introduction by John J. O'Meara.] Colin Smythe: Gerrards Cross, Buckinghamshire, pp. xxi, 70, ill.
- Buonanni, Filippo. 1681. *Ricreatione dell' occhio e della mente nell' osservation' delle Chicciole, proposta a' curiosi delle opere della natura, etc.* Roma.
- Buonanni, Filippo. 1684. *Recreatio mentis, et oculi in observatione animalium testaceorum curiosis naturae*

inspectoribus...nunc denuò ab eodem latrinè oblata,
centum additis testaceorum iconibus...Romae.

Buonanni, Filippo. 1709. *Musaeum Kircherianum; sive Musaeum a p. Athanasio Kirchero in Collegio romano Societatis Jesu...descriptim, etc...illustratim etc. Typis Georgii Planchi Profitentis & Characterum: Romae.*

Buonanni, Filippo. 1773, 1782. *Rerum naturalium historia nempe quadrupedum insectorum piscium, variorumque marinorum corporum fossilium plantarum exoticarum ac praesertim Testaceorum existium in Museo Kicheriano, edita jam a P. P. Bonannio, nunc vero nova methodo distributa, notis illustrata in tabulis reformata, novisque observationibus locupletata a J. A. Battatara, etc. 2 pts. Zempelliaro: Romae.*

Burns, John M. 1975. *Biograffiti: a natural selection.* W. W. Norton & Co.: New York, London, pp. 1-112, ill.

Caprotto, Erminio. 1988. *Cochlea sarmatica* N. SP.?? (Per una lettura critica dell'immaginario.) *Bollettino Malacologico* **24(1-4)**: 66-70, fig.

Céard, Jean. 1971. *Ambroise Paré. Des monstres et prodiges.* Droz: Geneve, pp. i-1, 239, illus.

Dance, S. Peter. 1979. *The illustrated beast.* Portfolio, pp. 58-62, 5 pls. (August/September).

Dance, S. Peter. 1988. *Cochlea sarmatica, a verie monstrous snail.* *Pallidula* [Carlisle] **19 (2-3)**: 36-37, fig. [December].

Dance, S. Peter and David Heppell. 1991. *Classic natural history prints. Shells.* Studio Editions Ltd.: London. pp. 1-128, 59 plates.

Delaunay, P. 1925. *Ambroise Paré, naturaliste.* *Bulletin de la Commission historique et archéologique de la Mayenne*, (sér. 2) 41(146):89-105; 41(147):189-210; 41(148):278-292.

Delaunay, P. 1962. *La zoologie au seizième siecle.* Paris: Hermann pp. i-xi, i-338, ill.

- Doe, Janet. 1937. A bibliography of the works of Ambroise Paré: Premier chirurgien & conseiller du roy. The University of Chicago Press: Chicago, pp. i-xx, 1-266, 29 pls.
- Ellis, Richard. 1998. The search for the giant squid. Lyons Press: New York. pp. i-xi, 322, numerous figs.
- Johnson, Thomas. 1634. The Workes of that famous chirurgion Ambrose Parey. Translated out of the Latine and compared with the French. Printed by Th. Cotes, London. Book 25, Of Monsters and Prodigies, pp. 961-1026. Reprinted: 1968, Milford House, Inc. Pound Ridge, New York.
- Jonstonus, Joannes. 1650-53. *Historiae naturalis de auibus: libri VI, cum aeneis figuris.* Francofurti ad Moenum: Impensa M. Meriani. Pt. 4 1650. *Historiae naturalis de exanguibus aquaticis*, pp. 1-78 [1] 20 pls.
- Jonstonus, Joannes. 1657. [Another edition] Folio 3, Part 4, *Historiae naturalis de exanguibus aquaticis*, pp. 1-58 [2], 20 pls.
- Jonstonus, Joannes. 1718 [Another edition entitled] *Theatrum universale omnium animalium piscium, etc.* Amsteledami. Printed in double column; each part separately paged. The plates are the same as the 1657 edition.
- Jonstonus, Joannes. 1755-1757. [Another edition entitled] *J. Jonstoni Theatrum universale omnium animalium, etc.* Heilbronn. The plates and engraved titles are the same as the original edition of 1650-1653.
- Jonstonus, Joannes. 1768 [Another edition entitled] *J. Jonstoni Theatrum universale omnium animalium, etc.* Rothomagi.
- Magnus, Olaus. 1555. *Historia de gentibus septentrionalibus earuque diversis statibus, conditionibus, moribus...*J.M. Viottis: Rome.

- Magnus, Olaus. 1565. *Historia delle genti et della natura cose settentrionali...Nuovamente tradotta in lingua toscana*. Giunti: Venice.
- Mann, Golo. 1946. *Secretary of Europe/The life of Frederich Gentz, enemy of Napoleon*. Translated by William H. Woglom. Yale University Press: New Haven, pp. i-xvi, 1-323.
- Nigg, Joseph. 1999. *The book of fabulous beasts*. Oxford University Press: Oxford, New York, pp. i-xx, 1-408.
- Pallister, Janis L. 1982. *Ambroise Paré on monsters and marvels*. Translated with an introduction and notes. The University of Chicago Press: Chicago and London, pp. i-xxxii, 1-224.
- Paré, Ambroise. 1573. *Deux livres/ de chirugie./ ...Chez André Wechel: Paris*. Book 2, *Monstres et Prodiges*, pp. 365-380. [1572, *teste* Doe 1937:74]
- Paré, Ambroise. 1579. *Les oeuvres d'Ambroise Paré/Conseiller et/premier Chirur-/gien du Roy/ Divisee en vingt sept livres, /Avec les figures et protraicts, tant de/ l'Anatomie que des instruments de Chirurgie et de plu-/ siers Monstres. / Reveuz et augmentez par/ l'Autheur, pour la se-/ conde Edition*. Chez Gabriel Buon: Paris. Book 25, *Monstres et Prodiges*, pp. 1003-1082.
- Paré, Ambroise. 1585. [Another edition entitled] *Les oeuvres d'Ambroise Paré/Conseiller et/premier Chirur-/gien du Roy/ Divisee en vingt sept livres, /Avec les figures et protraicts, tant de/ l'Anatomie que des instruments de Chirurgie et de plu-/ siers Monstres*, Book 25, *Monstres et Prodiges*, pp. m.xix-m.xcvii.
- Paré, Ambroise. 1595. [Another edition entitled] *Les oeuvres d'Ambroise Paré/Conseiller et/premier Chirur-/gien du Roy/ Divisee en vingt sept livres, /Avec les figures et protraicts, tant de/ l'Anatomie que des instruments de Chirurgie et de plu-/ siers Monstres*, Book 25, *Des Monstres et Prodiges*, pp. 1003-1081.

- Paré, Ambroise. 1607. [Another edition entitled] Les oeuvres d'Ambroise Paré/Conseiller et/premier Chirurgien du Roy/ Divisee en vingt sept livres, /Avec les figures et protraicts, tant de/ l'Anatomie que des instruments de Chirurgie et de plu-/ siers Monstres, Book 25, Des Monstres et Prodiges, pp. 1003-1081.
- Pflaum, Rosalynd. 1984. *By influence and desire*. M. Evans and Co., Inc.: New York, pp. i-ix, 290.
- Schlesinger, Roger and Arthur P. Stables. 1986. *André Thevet's North America: A sixteenth-century view*. McGill-Queen's University Press: Kingston and Montreal. pp. i-xli, pp. 1-292, [16] pls. map.
- Severin, Tim[othy]. 1978. *The Brendan voyage*. Hutchinson: London. pp. i-viii, 1-292 [16] leaves of pls., map.
- Severin, Tim[othy]. 2000. [Another edition entitled] *The Brendan voyage*, Modern Library: New York.
- Thevet, André. 1575. *La cosmographie universelle/ d'André Thevet cosmographe du roy; illustrée de diverses figures des choses plus remarquables veves par l'auteur & incogneues de noz anciens & modernes*. 2 vols. Chez P. L'Huilier: Paris.